

## **Summary of Research Relevant to AB1520**

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The purpose of this report is to highlight recent research and developments relevant to Assembly Bill 1520 (*Lifting Children and Families Out of Poverty Act*). We address four topics: (a) the state's improved capacity to target services, evaluate programs, and forecast poverty rates, (b) to provide examples, the evidence on home visiting programs that is most relevant to California's low-income population, (c) the evidence on early childhood education programs that is most relevant to California's low-income population, and (d) the payoff to a properly implemented bundling of poverty-reducing programs.

## **IMPROVING THE STATE'S CAPACITY TO EVALUATE, TARGET, AND FORECAST**

***A new administrative database:*** The state's capacity to evaluate anti-poverty programs, target services efficiently, and forecast poverty rates is currently being upgraded through a new initiative to integrate data from the California Franchise Tax Board (FTB), the California Health and Human Services Agency (CHHS), the California Department of Education (CDE), and other agencies.<sup>1</sup>

***Improved evaluations, targeting, and forecasting:*** This initiative, although ongoing, will make it possible to use existing tax, census, and administrative data to carry out key program evaluations and forecasts that will inform the task force's report. These data can also be used to develop immediate recommendations for improved targeting of services.

## **EVIDENCE ON HOME VISITING PROGRAMS**

***Purpose of home-visiting programs:*** The purpose of home-visiting programs is to improve child and adult health practices, improve parenting practices, and provide referrals to available social services. These voluntary programs are built around home visitors who provide mothers with guidance on diet and health behaviors, child health and development, and parenting.

***Rationale for home-visiting programs:*** The main rationale for home-visiting programs is the growing evidence that neural development is critically affected by the environment during prenatal and early-childhood periods.<sup>2</sup> Because of environmental stressors and deficits in low-income families and neighborhoods, the neural development of low-income children is frequently impaired, with the result that math and reading skills are often deeply compromised before kindergarten starts.<sup>3</sup>

***Health effects:*** The case for home-visiting programs is backed by a large body of randomized controlled trials and other high-quality research that demonstrates their effectiveness in reducing the effects of these stressors. The health benefits of home visiting are especially clear, with a strong pattern of reduced risk of low birthweight or pre-term births, reduced child maltreatment, reduced emergency medical care, fewer diagnoses of attention deficit hyperactivity disorder, and reduced use of alcohol and drugs. Likewise, there are clear health benefits for participating mothers, including improved prenatal health.<sup>4</sup>

***Educational and behavioral effects:*** The research evidence on cognitive development and school readiness is also favorable. The children participating in home-visiting programs are more attentive, regulate their behavior better, develop better language skills, have higher test scores, and have lower rates of juvenile arrest.<sup>5</sup>

***Cost-benefit analyses:*** The highest-quality home visiting programs consistently show a substantial return on investment. The best estimates show that, for every \$1 invested, there is a return ranging from \$2.77 to \$4.20 (with the payoff coming in the form of increased lifetime earnings, reduced criminal justice involvement, and reduced remedial education).<sup>6</sup>

***Targeting:*** This return on investment differs across families.<sup>7</sup> Although most evaluations of home visiting programs are not based on samples that are large enough to sort out which subgroups benefit most from participation, the available large-sample estimates suggest that teen mothers and parents of low-birthweight infants have higher benefits.<sup>8</sup> By using the state's newly linked administrative data, it will be possible to identify high-payoff subpopulations even more precisely, thus allowing for more efficient targeting.

## EVIDENCE ON EARLY CHILDHOOD EDUCATION

**Purpose of early childhood education:** The twofold purpose of early childhood education programs is (a) to increase employment among low-income parents, and (b) to provide low-income children with early training that is more nearly equivalent to that provided to higher-income children.

**Rationale for early childhood education:** The available evidence suggests that key cognitive and noncognitive inequalities are well in place *before* children begin formal schooling and do not increase all that much thereafter. The income gap in achievement tests, for example, is already very large when children enter kindergarten.<sup>9</sup> The rationale for early childhood education is thus to take up where home visiting programs left off by providing the early training that can prevent such a large gap from emerging early in the lifecourse.

**Effects on cognitive outcomes:** In a meta-analysis of 123 studies of early childhood education, children in high-quality programs registered large improvements in reading and math, with scores for the exposed children moving, on average, from the bottom quartile to the mid-point of the distribution.<sup>10</sup>

**Effects on noncognitive outcomes:** The effects on socioemotional and behavioral outcomes are approximately half as large as the effects on reading and math scores. These noncognitive effects take the form, for example, of improved social skills, less delinquency, and reduced involvement in crime.<sup>11</sup>

**Cost-benefit analyses:** The foregoing effects on cognitive and noncognitive outcomes translate into higher earnings in early adulthood.<sup>12</sup> Based on a comprehensive meta-analysis of California's state-funded programs, the state secures \$4.76 in benefits for every \$1 in costs, with these benefits arising from higher adult earnings, reduced crime rates, and lower expenditures on grade repetition and special education.<sup>13</sup>

**Targeting:** There is much evidence showing that the benefits to preschool are especially large for low-income children,<sup>14</sup> black children (even those from somewhat higher income levels), and Hispanic children who speak Spanish at home.<sup>15</sup> The latter result is noteworthy because there are many Hispanic children in California who do not have an English-proficient parent<sup>16</sup> and do not attend state-funded preschool or childcare.<sup>17</sup> It will become possible to target high-payoff beneficiaries even more precisely with the state's new administrative-data infrastructure.

**Effects on parental employment:** The rationale for early childhood education also rests on benefits to the parents in the form of increased employment and earnings. The best available evidence indicates that these parental returns are substantial.<sup>18</sup>

## THE PAYOFF TO A COMPREHENSIVE SEQUENCING OF INVESTMENTS

**The rationale for sequencing:** The foregoing estimates rest on the conservative assumption that the payoff to early childhood education is the same regardless of whether the child is or is not a "graduate" of a home visiting program. This assumption is likely off the mark because children who have participated in a home visiting program have new cognitive and noncognitive capacities that then serve as the foundation for acquiring skills thereafter. The same "compounding logic" implies that early childhood education activates capacities that can then be exploited by enriched forms of primary and secondary education. It follows that the state's investment in the Local Control Funding Formula (LCFF) will have a higher payoff insofar as it builds on a foundation of early interventions.<sup>19</sup>

**The evidence on sequencing:** Although research on such compounding effects is still in its early stages, it bears noting that many of the early childhood programs with the strongest documented effects have combined home visiting with center-based education. Likewise, Head Start programs that incorporate home visiting have yielded especially large benefits,<sup>20</sup> while preschool programs in the Chicago Child-Parent Centers were also found to be more effective when combined with follow-up services.<sup>21</sup> These results suggest that the payoff to the state's interventions will be higher when they are provided to children with the cognitive and noncognitive capacities to take full advantage of them.

## Endnotes

- <sup>1</sup> William T. Grant Foundation Institutional Challenge Grant. “Reducing Inequality in Youth Outcomes Through Administrative Record Linkage, Analysis, and Agency Capacity-Building.”
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- <sup>3</sup> Reardon, S. and X. Portilla. 2016. Recent trends in income, racial, and ethnic school readiness gaps at kindergarten entry. *AERA Open*, 2(3), 1-18.
- <sup>4</sup> Eckenrode, J., Canzel, B., Henderson, C., Smith, E., Olds, D., Powers, J., Cole, R., Kitzman, H., & Sidora, K. 2000. “Preventing child abuse and neglect with a program of nurse home visitation.” *Journal of the American Medical Association* 284(11), 1385-1391; Eckenrode, J., Campa, M., Luckey, D. W., Henderson, C. R., Cole, R., Kitzman, H., Anson, E., Sidora-Arcoleo, K., Powers, J., & Olds, D. 2010. “Long-term effects of prenatal and infancy nurse home visitation on the life course of youths: 19-year follow-up of a randomized trial.” *Archives of Pediatrics & Adolescent Medicine*, 164(1), 9-15; Miller, T., Olds, D., Knudtson, M., Luckey, D., Bondy, J., Stevenson, A. 2011. “Return on investment: Nurse and paraprofessional home visitation, Denver.” <https://www.ncjrs.gov/pdffiles1/ojdp/grants/233277.pdf>.
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- <sup>6</sup> Washington State Institute for Public Policy. 2014. “Benefit-cost results: Nurse Family Partnership for low-income families.” <http://www.wsipp.wa.gov/BenefitCost/Program/35>; Pacific Institute of Research and Evaluation. 2010. “Cost Savings of Nurse-Family Partnership in California.” <https://www.nursefamilypartnership.org/wp-content/uploads/2017/07/ROI-California.pdf>
- <sup>7</sup> Karoly, L.A., Kilburn, M.R., Cannon, J.S. 2005. “Early childhood interventions: Proven results, future promise.” RAND. [https://www.rand.org/content/dam/rand/pubs/monographs/2005/RAND\\_MG341.pdf](https://www.rand.org/content/dam/rand/pubs/monographs/2005/RAND_MG341.pdf)
- <sup>8</sup> Sama-Miller, E., Akers, L. Mraz-Esposito, A., Zukiewicz, M., Avellar, S., Paulsell, D., and Del Grosso, P. 2017. “Home visiting evidence of effectiveness review: Executive summary. Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Washington, DC. [https://www.acf.hhs.gov/sites/default/files/opre/homvee\\_executive\\_summary\\_03162017\\_508.pdf](https://www.acf.hhs.gov/sites/default/files/opre/homvee_executive_summary_03162017_508.pdf); Sweet, M. and M. Applebaum. 2004. “Is home visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children.” *Child Development* 75(5), 1435-1456.
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- <sup>16</sup> Urban Institute Children of Immigrants Data Tool (data from 2013-2014). <http://datatool.urban.org/charts/datatool/pages.cfm#>
- <sup>17</sup> Schumacher, K. 2017. "Enrollment in subsidized child care and development programs varies by race and ethnicity." California Budget & Policy Center. <http://calbudgetcenter.org/resources/enrollment-subsidized-child-care-development-programs-varies-race-ethnicity/>
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